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| U.S. Radiocommunications Sector  Fact Sheet | | |
| **Working Party:** ITU-R WP 5B | **Document No:** USWP5B32-06 | |
| **Ref:** WRC-27 AI 1.19 | **Date:** March 7, 2024 | |
| **Document Title:** Proposed draft liaison statement to Working Party 7C | | |
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| **Purpose/Objective:** This contribution proposes a draft liaison statement to WP 7C regarding AI 1.19 to allow WP 7C to proceed with its planning for sharing and compatibility studies. | | |
| **Abstract:** Pursuant to Resolution **674 (WRC-23)**, in preparation for Agenda Item 1.19 (**WRC-27**), this contribution proposes a draft reply liaison statement to WP 7C with relevant technical information of aviation systems, including radio altimeters and wireless avionics intra-communication systems operating in the frequency band 4 200-4 400 MHz. | | |

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| **Radiocommunication Study Groups** |  |
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| **English only** |
| United States of America | |
| proposed draft reply liaison statement to Working party 7c  **Relevant technical information for sharing studies under WRC-27 Agenda Item 1.19** | |
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**Introduction**

WRC-27 Agenda Item 1.19 considers possible primary allocations in all Regions to the Earth exploration-satellite service (passive) in the frequency bands 4 200-4 400 MHz and 8 400-8 500 MHz, in accordance with Resolution **674 (WRC-23)**. This contribution proposes a draft reply liaison statement to WP 7C with relevant technical information of aviation systems, including radio altimeters and wireless avionics intra-communication systems operating in the frequency band 4 200-4 400 MHz.

Attachment: 1

ATTACHMENT

# Working Party 5B

PROPOSAL DRAFT REPLY LIAISON STATEMENT TO WORKING PARTY 7C

**Relevant technical information for sharing studies under WRC-27 Agenda Item 1.19**

Working Party (WP) 5B thanks WP 7C for its liaison statement (Document 5B/XX), requesting the characteristics and protection criteria of the systems operating in the frequency band 4 200-4 400 MHz, for sharing/compatibility studies under WRC-27 agenda item 1.19. The frequency band 4 200-4 400 MHz is allocated to the aeronautical mobile (R) service (AM(R)S) and the aeronautical radionavigation service (ARNS) on the primary basis. Use of the frequency band 4 200-4 400 MHz by the aeronautical radionavigation service is reserved exclusively for radio altimeters installed on board aircraft and for the associated transponders on the ground. And use of the frequency band 4 200-4 400 MHz by stations in the aeronautical mobile (R) service is reserved exclusively for wireless avionics intra-communication systems that operate in accordance with recognized international aeronautical standards.

WP 5B highlights the following ITU-R recommendations and Reports that provide relevant technical information of above aviation systems:

**Recommendation ITU-R M.2059-0** Operational and technical characteristics and protection criteria of radio altimeters utilizing the band 4 200-4 400 MHz (02/2014)

This recommendation provides the technical and operational characteristics, and protection criteria of radio altimeters. Representative operational and technical characteristics of radio altimeters are in Annex 1 and Annex 2 of this recommendation. The protection criteria of the radio altimeters are in Annex 3 of this recommendation. Radio altimeter antenna pattern can be found in Annex 2 Section 1.2 of this recommendation.

**Recommendation ITU-R M.2067-0** Technical characteristics and protection criteria for Wireless Avionics Intra-Communication systems (02/2015)

This recommendation provides the technical and operational characteristics and protection criteria for wireless avionics intra-communication (WAIC) systems, as described in its Annex.

**Report ITU-R M.2319-0** Compatibility analysis between wireless avionic intra-communication systems and systems in the existing services in the frequency band 4 200-4 400 MHz (11/2014)

This report contains compatibility studies between radio altimeters and WAIC systems on board separate aircraft in the 4 200-4 400 MHz band.

WP 5B requests to be kept informed on the progress of the studies under WRC-27 agenda item 1.19 and will provide to WP 7C any relevant updated information, before 31 December 2024 deadline, for studies under this WRC-27 agenda item.

Status: For information and action, as appropriate

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